

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554**

In the Matter of)	
)	
Digital Television Distributed Transmission)	MB Docket No. 05-312
System Technologies)	

To: The Commission

**REPLY COMMENTS OF
THE ASSOCIATION FOR MAXIMUM SERVICE TELEVISION, INC.**

The Association for Maximum Service Television, Inc. (“MSTV”) believes that the advent of Distributed Transmission Systems (“DTS”) provides significant opportunities to improve over-the-air television service to the public. The rules for DTS should be carefully crafted, however, not only to promote the benefits of DTS but also to avoid the possible risks that it poses to existing over-the-air television service. Consequently, the Commission should give careful consideration to the risks of market intrusion and increased interference as it continues with this rulemaking proceeding.¹

MSTV agrees with the Commission and the many commenters who support licensing of DTS on a primary basis, with transmitters licensed as part of a group. DTS users should not be permitted to create new interference, and an accurate interference measurement methodology must incorporate variable protection ratios and field strength aggregation in the OET-69 methodology. The Commission should adopt a principal community coverage requirement and should not permit stations using DTS to arbitrarily expand their service to

¹ See *Digital Television Distributed Transmission System Technologies*, Clarification Order and Notice of Proposed Rulemaking, FCC 05-192, MB Docket No. 05-312 (rel. Nov. 4, 2005) (“*DTS NPRM*”).

distant areas already well-served by local, full-power stations. And, although MSTV agrees with the Commission that LPTV and translator stations should be permitted to use DTS, Class A stations should not be permitted to create single frequency networks using DTS, nor should the relationship between Class A and full-power stations turn on whether the full-power station is using DTS technology.

I. The Commission Should Adopt Its Proposals Concerning the Regulatory Status for DTS.

A. The Commission's Proposal to Afford Primary Status to DTS Is Sound.

MSTV agrees with the Commission and majority of commenters that DTS should be licensed on a primary basis and as part of a linked group. This proposal would encourage investment in DTS technology and, along with the proposal to process modifications through minor change applications, would simplify the adoption of this technology.² As several commenters noted, a principal community coverage requirement should be a central aspect of the DTS licensing regime.³

B. The New America Foundation Objections Are Groundless and Should Be Disregarded.

The New America Foundation *et al.* ("NAF") urges the Commission to deny the public the benefits of DTS in order to reserve spectrum for unlicensed devices.⁴ This position is

² *DTS NPRM* at ¶ 13; Comments of MSTV, MB Docket No. 05-312 (filed Feb. 6, 2006) ("MSTV Comments") at 3.

³ *See, e.g.*, MSTV Comments at 4; Comments of the National Association of Broadcasters, MB Docket No. 05-312 (filed Feb. 6, 2006) ("NAB Comments") at 3; Comments of Sunbelt Television, Inc., MB Docket No. 05-312 (filed Feb. 6, 2006) at 2. In cases where a station demonstrates that an alternative arrangement – such as principal community coverage provided by a main transmitter and a DTS transmitter – provides the same or better coverage, such an arrangement should be permissible.

⁴ Comments of the NAF, *et al.*, MB Docket No. 05-312 (filed Feb. 6, 2006) ("NAF Comments") at 13 (arguing that the Commission should not proceed with this rulemaking because the (continued...))

puzzling, given that the primary purpose of DTS is to enhance the reliability of a broadcaster's existing service on its existing frequencies.⁵ These concerns also fly in the face of NAF's claims that there are significant "white spaces" throughout the broadcast band. Since DTS will operate primarily on-channel within a broadcaster's service, it is perplexing how such operation could be claimed to impact unlicensed devices' operation, unless NAF's spectrum studies are – as MSTV has indicated on prior occasions – erroneous and there is *not* significant "white space" in most major markets. This can be the only logical explanation since NAF is well aware of the fact that Part 15 unlicensed devices by definition must yield to any licensed operation.⁶ If on-channel or single frequency DTS transmissions would "substantially diminish" the amount of spectrum available to unlicensed devices,⁷ NAF has significantly erred in its definition and estimation of available "white space." NAF's desire to commit spectrum to use by unlicensed devices should not delay or impair the Commission's goal of ensuring that the public has access to reliable DTV service through use of DTS.

Moreover, the "white space" proposal that is the basis for NAF's objections is deeply flawed. Permitting unlicensed devices into the television broadcast spectrum would create significant interference to licensed services. First, no technology has been demonstrated

"opportunity costs of precluding advanced wireless services clearly outweigh the benefits to OTA television households").

⁵ See, e.g., *DTS NPRM* at ¶ 8 (DTS has the potential to overcome terrain limitations, to reduce the likelihood of causing interference to neighboring licensees, and to provide more reliable indoor reception); *id.* at ¶ 12 (benefits of DTS include the ability to reach populations that otherwise would not be served by conventional means).

⁶ See 47 C.F.R. Part 15.5.

⁷ NAF Comments at 9.

to reliably prevent such devices from transmitting on television channels already in use.⁸

Second, even when operating solely on vacant television channels, unlicensed devices create harmful emissions that would seriously degrade the public's local television service.⁹ Third, the unbounded entry of unlicensed devices would add millions of interfering devices to the spectrum and elevate the spectral noise floor above the levels necessary to provide a clear and robust free, over-the-air television service. Finally, MSTV again notes that unlicensed devices advocates dramatically overestimate the amount of "white space" actually available, and consequently overestimate the purported public benefits of the unlicensed devices proposal.¹⁰

In sum, contrary to NAF's assertions that DTS operations would be a spectrum "giveaway,"¹¹ DTS operations help to achieve *precisely* what was intended by allocating this spectrum to broadcast television: a reliable over-the-air television service.¹² In contrast, unlicensed devices operating in "white spaces" would cause a significant and direct harm to this service.

⁸ See, e.g., Joint Comments of MSTV and NAB, ET Docket 04-186 (filed Nov. 30, 2004).

⁹ *Id.*, Ex. A.

¹⁰ See, e.g., Joint Reply Comments of MSTV and NAB, ET Docket 04-186 (filed Jan. 31, 2005).

¹¹ NAF Comments at 8.

¹² MSTV respectfully suggests that handing over the nation's white spaces to unlicensed devices would represent the true spectrum "giveaway," given that such a development would preclude future licensed uses of that spectrum. NAF's other comments, such as the suggestion that the broadcast industry give up the right to broadcast at high power, NAF Comments at 14, are similarly baseless and entirely inappropriate in this proceeding.

II. The Commission Should Protect the Service of Neighboring Stations from Harmful Interference.

A number of parties have pointed to the importance of ensuring that DTS operations do not cause interference to the service provided by neighboring stations.¹³ MSTV agrees that protection of the public's free, over-the-air television service is paramount, and that the Commission can address these concerns by modifying the OET-69 methodology.

Specifically, as MSTV explained in detail in its initial comments, the OET-69 interference standard should be modified in order to account for field strength aggregation and variable protection ratios.¹⁴

OET-69 was designed based on a broadcast system using single, high-power transmitters covering wide areas. In order to properly account for the characteristics of a DTS network, the interference calculation methodology should be updated to (i) consider the effect of variable desired-to-undesired signal levels, including D/U ratios for strong, moderate, and weak signal levels; and (ii) properly measure the interference effect of aggregate, multiple DTS transmitters.¹⁵

III. The Commission Should Promote DTS to Enhance Service Reliability.

MSTV believes that the core reason to promote investment in and build-out of DTS transmitters is that DTS offers significant potential to enhance the reliability of service to

¹³ See, e.g., Comments of Siete Grande Television, Inc., MB Docket No. 05-312 (filed Feb. 6, 2006) at 14 (critical parameters for DTS include a requirement of no interference to or from other existing stations).

¹⁴ MSTV Comments at 5-9.

¹⁵ See *id.* at 5-9 for more detail. In addition, in its initial comments, MSTV urged that existing Part 73 parameters concerning power, antenna height, and emission masks should apply to DTS facilities. Several commenters agreed with this proposal. See, e.g., Comments of the Merrill Weiss Group, LLC, MB Docket No. 05-312 (filed Feb. 6, 2006) ("MWG Comments") at 9.

broadcasters' over-the-air viewers.¹⁶ It can help broadcasters deliver service to underserved areas where there might be gaps in coverage and to viewers in hilly or mountainous areas who might have difficulty receiving a signal from a single main transmitter.¹⁷

With this central goal in mind, the Commission should avoid DTS rules that permit the arbitrary expansion of a station's reach into areas already served by full-power local stations. While some parties have urged the Commission to allow DTS to be used to significantly extend their reach on a primary basis, the record on this issue is mixed.¹⁸ The Commission should be cautious as it considers any expansion of service through the use of DTS. Moreover, the Commission should not permit stations to expand service into adjacent DMAs (an encroachment that is theoretically possible under the Commission's oversimplified "Table of Distances" approach).¹⁹

IV. The Commission Should Not Permit DTS Use to Alter the Regulatory Relationship Between Full Power, Class A, and Low Power Television Stations.

As noted above, the primary purpose of DTS is the improvement in reliability and delivery of over-the-air television service. MSTV supports the authorization of DTS for LPTV stations to enable such stations to improve coverage within their viewing areas.

While MSTV believes that DTS should be available to stations for this purpose, use of DTS should not change the regulatory relationship between full-power and other

¹⁶ See MSTV Comments at 1; *see also* MWG Comments at 3.

¹⁷ See MSTV Comments at 1.

¹⁸ Compare, e.g., Comments of the Alliance for Local Broadcasters, MB Docket No. 05-312 (filed Feb. 6, 2006) at 2 (urging primary status for DTS within the station's Authorized Service Area and secondary status for expanded DTS operations outside of that area but within a station's DMA), with Comments of Harris Corp., MB Docket No. 05-312 (filed Feb. 6, 2006) at 3 (supporting the Commission's proposal to limit service areas to the equivalent of the area that a station could serve using a single transmitter).

¹⁹ See MSTV Comments at 11.

stations.²⁰ Therefore, the protections to which a full-power station is entitled should be the same regardless of whether the station is using a single transmitter or multiple DTS transmitters.

Similarly, Class A stations should not be permitted to use DTS to alter the nature of the service they provide. Accordingly, MSTV disagrees with the commenters who supported the creation of single-frequency networks.²¹ Single frequency networks stray from the primary purpose of DTS – improved delivery and reliability of television signals – and would enable two or more local channels to convert in a “super” Class A station.²²

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²⁰ *See id.* at 13.

²¹ *See, e.g.*, MWG Comments at 24; Comments of the Community Broadcasters Association, MB Docket No. 05-312 (filed Feb. 6, 2006).

²² *See* MSTV Comments at 14.

CONCLUSION

DTS has the potential to improve the reliability of over-the-air television service for many members of the viewing public. MSTV recognizes the benefits of DTS and supports the basic regulatory framework proposed by the Commission and many commenters, including primary status in order to encourage investment. Because this technology is unlike traditional, single-transmitter systems, the OET-69 methodology should be modified accordingly. In considering the various possibilities for DTS service areas, the Commission should carefully account for the risks of encroachment into other markets. The Commission should also ensure that Class A and LPTV stations use DTS in accordance with such stations' regulatory status.

Respectfully submitted,

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*Admitted in Massachusetts only; not admitted in the District of Columbia, and supervised by principals of the firm.